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EVENING STAR

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EDITORIAL

Excellent ABM Advice

As chairman of the Joint Congressional Atomic Energy Committee, California's Representative Chet Holifield is in a much better position than most of us to appraise the merits of the proposed "thin" anti-ballistic missile system. But he is not yet ready to say, at least not publicly, whether he is for or against the project.

After listening to five hours of closed-door testimony given his committee last week, however, he did not hesitate to admonish his congressional colleagues against staking out premature positions on the issue. The sensible thing, he said, is for all members of Congress to wait until they can study the relevant information — highly technical information — before committing themselves one way or the other. This is very sound advice, especially so since the voting on whether to provide the needed additional funds is expected to be close.

Some members of Congress have been subjected to considerable pressure from constituents who have raised a variety of objections to the thin, or, as it is better known, the Sentinel ABM system. The complaint most often heard comes from people who do not want the necessary ABM missile complexes located near

the communities in which they live. Some say the system will cost too much money. Others contend it cannot be effective in the present stage of development. And one senator has objected because the taking of land needed for a missile complex near a city in his state would interfere with plans for industrial development. The proponents, of course, strongly urge that deployment of Sentinel should begin without further delay, and, on the basis of the information available to us, we share this view.

It should never be forgotten that the decision on going forward with Sentinel or calling a halt is one that bears directly on the security of the United States. And this could be as important as the controversy over building the H-bomb some 20 years ago. Fortunately, despite the arguments of the opposition, President Truman gave the go-ahead signal then, and the Russians, who were hard at work, came in second in the race for that awesome weapon.

The Sentinel program is now under intensive review. President Nixon is expected to announce a decision in the immediate future. Pending this report, plus further congressional hearings, minds should be kept open, not closed.

WASHINGTON POST

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EDITORIAL

Sense on Inspections

The United States first proposed a cutoff of the production of nuclear materials for weapons purposes back in 1956. But for 13 years now there has been no progress toward such an agreement. A major sticking point has been this country's insistence that it be permitted to make on-the-spot inspections within the Soviet Union, and vice versa. The Russians have consistently turned thumbs down to this demand, claiming these inspections would be used as a cover for American espionage activities.

It was in this context that the Nixon administration launched its proposal designed to move these negotiations off dead center. Ambassador Adrian Fisher informed the participants at the Geneva disarmament talks that the United States has dropped its demand for American inspections of Russian territory. Henceforth said Fisher, this country is willing to rely exclusively on inspections conducted by the International Atomic Energy Agency.

Naturally Americans will want to know whether reliance on IAEA alone endangers this country's security. In our view, there is considerable ground for reassurance on this point.

For one thing, both the United States and the Soviet Union belong to IAEA and are thus in a position to insist that IAEA does a thorough job of inspecting the other's territory. Obviously the membership of the IAEA inspection teams will be of critical importance. If the Russians won't accept any Americans or vice versa, responsible team members can doubtless be found from third countries.

Ambassador Fisher also observed that certain technical advances have rendered on-sight inspections less necessary. One can only speculate what these advances may be. Presumably they have to do with spy-in-the-sky satellites and this country's overall capability to gather intelligence within Russian borders. No doubt the precise nature of these technical advances will be revealed in

closed-door congressional sessions at a later stage.

For whatever reason, the Russians have chosen to weigh in promptly with a half-baked response to the Fisher proposal. A halt to the production of nuclear materials for atomic weapons has been rejected out of hand. Instead, Soviet Ambassador Roshchin has dusted off and pushed forward that old standby in the Russian propaganda arsenal—a complete ban on the use of nuclear weapons.

Roshchin made no mention, however, of the United States proposal to rely on IAEA exclusively for on-site inspections. Perhaps this omission is significant. Possibly the Russians will eventually have second thoughts about the wisdom of using the Geneva talks as a propaganda forum.

We must all hope so, for the business of slowing the nuclear arms race is far too important not to be undertaken with the deadly seriousness it deserves.

NEW YORK TIMES

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Future of Peaceful Atomic Energy Uses Weighed

By GLADWIN HILL
Special to The New York Times

LAS VEGAS, Nev., April 12—Periodically the cactus-dotted desert north of this resort center is shaken by an atomic blast that has nothing to do with the international arms race. It is another of the tests in the Plowshare program to adapt explosive nuclear energy to peaceful engineering purposes.

The potential peaceful uses include the digging of ditches as big as the Panama Canal; the breaking open of ore formations for mining; the liberation of underground deposits of ore, oil, gas and water; and the production of radioactive chemicals.

Ten thousand tons of dynamite or TNT—enough to produce an explosion half as big as the World War II Hiroshima bomb—would cost upward of \$4-million or \$400 a ton, and would need a hole over 80 feet in diameter for placement.

A 10,000-ton-nuclear explosive device, Atomic Energy Commission scientists say, might cost no more than \$350,000, or \$35 a ton, and require a hole less than six feet in diameter.

The cost drops rapidly with increased power. A nuclear device with the power of two million tons of TNT—twice as big as any nuclear explosion yet detonated on this continent—would cost only about 30 cents a ton.

23 Tests So Far

The Plowshare testing program has been under way since 1961 and there have been 23 experimental detonations. Twenty-one of them on the A.E.C.'s 1,300-square-mile test reservation near here.

One was in a salt formation at Carlsbad, N.M. One touched off in a practical industrial context successfully stimulated the flow of natural gas in a field at Farmington, N.M., in 1967.

A half-dozen more tests of practical applications have been planned in collaboration with various industrial and governmental entities. One, code named Rulison, is a 40,000-ton underground blast tentatively scheduled to be touched off May 22 near Rifle, Colo., to liberate oil embedded in a shale rock formation.

Last week two significant developments occurred in the program. For one, some 400 scientists, engineers and industrialists from a half-dozen nations spent four days here, at a conference organized by the United States Public Health Service, to review the Plowshare program, with particular emphasis on the environmental safety aspects.

For another, it was announced that representatives of the United States and the Soviet Union would sit down in Vienna on Monday to discuss the sharing perhaps with other nations of the knowledge of peaceful uses.

No one knows just how much work the Russians have done in this field. They have advertised engineering achievements accomplished with large amounts of conventional chemical explosives, and they have certainly been thinking about nuclear applications.

The log of Russian nuclear test detonations contains one or more events that knowledgeable participants in this week's conference suspect were experiments in peaceful uses, mainly because they occurred away from the Russians' regular military-test areas.

The United States, the Soviet Union and Great Britain are the parties to the 1963 treaty that

forced atomic test explosions underground. The treaty bans test detonations that would release radioactivity over international boundaries.

This agreement plus United States domestic legislation have limited the Plowshare program, so that there has not been a year when the money budgeted for it ran as much as \$20-million. Meanwhile, the Atomic Energy Commission's over-all budget has been running about \$2.5-billion a year.

Existing atomic energy laws limit Plowshare activity to "research and development" work. Many of those connected with it believe the information is now ready to be made commercially available, and proposed amendments to this effect are before Congress.

The international agreement refers simply to "radiation"—a vague term, since there are degrees of radiation everywhere. This is currently construed to mean any man-made radiation.

It would preclude such an undertaking as the suggested nuclear blasting of a new Panama Canal. In an explosion of that sort, some radiation is bound to get into the air, and international boundaries are only a few miles away.

The ranking minority member of the Joint Congressional Committee on Atomic Energy, Representative Craig Hosner, Republican of California, urged strongly in a talk to the Las Vegas conference that the interpretation of "radiation" be liberalized. Mr. Hosner would sanction explosions that might release no more than 10 percent of what is generally agreed to be the "maximum permissible concentration" of free radiation—the "MPC" being one of the guidelines used domestically.

'Paranoiac Clique' Scored

Representative Hosner excoriated what he called a "paranoiac clique" in the State Department, the Bureau of the Budget and the Arms Control Agency, which he said had strenuously opposed the Plowshare program all along because of erroneous association of it with the atomic-weapons development program.

This obstacle would have to be surmounted, he said, if President Nixon's indicated wish to pursue Plowshare vigorously were to be realized.

From other anonymous Congressional quarters, conference participants picked up rumors that the prevailing Administration mood was to let Plowshare languish—an idea not supported by the announcement of the Vienna meeting.

Another more tangible obstruction to stepping up peaceful nuclear applications drew considerable conference attention. That is the fact that the amount of radiation released by these peaceful explosions is still "classified" national security data, since it supposedly dovetails with closely guarded data from nuclear weapons testing.

Presumably the released amounts of radiation are small, since they come mostly from the atomic-fission device used to trigger the far less "dirty" atomic fusion reactions that really produce most of the explosive force.

However, up to now prospective users of peaceful explosions, such as industrial concerns, have had to take the A.E.C. scientists' word that any released radiation would be on a nonhazardous scale, given the customary precautions.

This presents difficulties both in respect to insurance of the corporations and to the A.E.C.

programs for popularizing Plowshare and reassuring the public.

One leading Plowshare scientist from the A.E.C.'s Lawrence Radiation Laboratory in Livermore, Calif., Dr. Edward H. Fleming, urged that this informational restriction be dropped as unnecessary.

Even radiation data from some military tests, he noted, has been declassified. The issue is now before a high-level A.E.C. classification committee, but there are the usual pressures from the Department of Defense, which often goes on the theory that one cannot get in trouble if information is withheld.

Specifics Are Skirted

This ban on discussing radiation release forced many of the 40 scientific papers presented to the conference to skirt specifics and deal more in academic and theoretical terms. This in turn caused some dissatisfaction among industry representatives and others who came to find out exactly where Plowshare stood.

"It's like asking somebody what time it is," one man said, "and having him tell you how a watch is made."

The gist of the reports was that an immense web of meticulously engineered safeguards,

years in the making, virtually eliminated any hazard in peaceful explosions from atmosphere radiation, seismic shocks or ground water pollution.

It was emphasized that however "commercially available" nuclear engineering devices may become the equipment and the detonation procedures would remain in the hands of the A.E.C. personnel who had developed them. These devices are quite different in construction from weapons.

One paper suggested that in terms of just one known product of nuclear explosions, radioactive carbon, it would be necessary to limit peaceful explosions in the United States to the equivalent of 70 million-ton detonations a year to avoid contaminating the atmosphere.

The use of peaceful explosions by a number of nations, said Dr. G. Hoyt Whipple, a professor of radiological health at the University of Michigan might call for an international rationing system.

Las Vegas's most prominent denizen, the industrialist Howard Hughes, has expressed concern about possible hazards of the Nevada testing. Several members of the Hughes organization attended the conference but made no comment.